CLAIMS

1. A system and its corresponding device to measure instantly and permanently the ultraviolet solar radiation, CHARACTERIZED because it has means to detect the UV radiation from the sun and it has means to display the information in a public or private place.

2. The system according to claim 1, CHARACTERIZED because it allows to detect the UV-B solar radiation by means of a filter added to the components mentioned in claim 1 such that the total spectral response corresponds to the erythema action curve.

3. The system according to claim 1,CHARACTERIZED because the means to detect and process the information are solid state electronic elements.

4. The system of claim 1, CHARACTERIZED because the means to display the UV information are public ads, poster advertising, road boards, billboards, etc.

5. A system and its corresponding device to measure instantly and permanently the ultraviolet solar radiation, CHARACTERIZED because it comprises an ultraviolet detector

electrically connected to a electronic processing unit, which converts it to a display signal adequate to show the UV information in a public or private place by means of public ads, poster advertising, road boards, billboards, such that is clearly visible.

6. The device according to claim 5, CHARACTERIZED because the display system is luminous, can be located in a public place, and has advertising.

7. The device according to claim 5, CHARACTERIZED because the detector is provided with a filter such that the total spectral response corresponds to the erythema action curve.

8. The device according to claim 4, CHARACTERIZED because the detector head has analog electronics and an circuit for analog to digital conversion.

9. The device according to claim 8, CHARACTERIZED because the detector head a semiconductor detector with a UV filter (5), a Teflon diffuser (4), an amplifier and a metallic enclosure.

10. The device according to claim 9, CHARACTERIZED because the mentioned amplifier has a standard transimpedance

configuration, preferentially a low noise operational amplifier with low sensitivity to temperature.

11. The device according to claim 4, CHARACTERIZED because the means to display the ultraviolet radiation information mentioned amplifier has a color light set (3), color flags, TV sets, numeric indicators, or others and the color equivalency is the same as recommended and established by the World Health Organization (WHO).

12. The device according to claim 4, CHARACTERIZED because it is locates in private place such as schools, private houses, pools, stadiums, or other similar places

AMENDED CLAIMS
[received by the International Bureau on 04 May 2005 (04.05.05);
original claims 1-12 replaced by amended claims 1-11 (4 pages)]

CLAIMS

1. A system and its corresponding device to measure instantly and permanently the ultraviolet solar radiation, which comprises a UV filter, an ultraviolet detector, an analog to digital converter, an amplifier, CHARACTERIZED in that it further comprises a device to display by means of colours lights (3), with preferably five different colours lights, for the indication of the instantaneous radiation measured and displayed in accordance with the recommendations, nomenclature, and correlation colour index established by the World Health Organization (WHO); additionally it comprises a detector head that incorporates the elements necessary to measure the ultraviolet radiation and that are built-in in one enclosure (6) made of some metallic material or another similar one, wherein the detector head is an externally located unit regarding to the electrical processing means, and it is connected by means of a cable to the other components of said system.

2. The system according to claim 1, CHARACTERIZED in that it includes means to detect a signal that contains information or data with respect to the level of

ultraviolet radiation, means for the processing of this signal and means for the display of this processed signal to be visualized to the distance in a place of public or private access.

3. The system according to claim 1, CHARACTERIZED in that it allows to detect the UV-B solar radiation by means of a filter added to the components mentioned in claim 1 such that the total spectral response corresponds to the erythema action curve.

4. The system according to claim 1, CHARACTERIZED in that the means to detect and process the information or data are solid state electronic elements.

5. A system and its corresponding device to measure instantly and permanently the ultraviolet solar radiation, CHARACTERIZED in that it comprises an ultraviolet detector head (1), which is electrically connected to an electronic processing unit of the received signal(2), which converts it to a display signal adequate to show the UV information in a public or private place by means of public ads, poster advertising, road boards, billboards, such that is

clearly visible so that it allows his visibility to the distance.

6. The device according to claim 5, CHARACTERIZED in that said display system is luminous, it can be located in any place of public or private access and it also can contain publicity or advertising.

7. The device according to claim 5, CHARACTERIZED in that the detector head has analog electronics and a circuit for analog to digital conversion.

8. The device according to claim 7, CHARACTERIZED in that the detector head comprises a semiconductor detector with an UV filter (5), a Teflon diffuser (4), an amplifier and a metallic enclosure (6).

9. The device according to claim 8, CHARACTERIZED in that said amplifier has a standard transimpedance configuration, preferentially a low noise operational amplifier with low sensitivity to temperature.

10. The device according to claim 5, CHARACTERIZED in that the means to display the ultraviolet radiation information

mentioned consist of a set of five colours light or leds array (3), colours flags, panels of liquid plasma/crystal TV, numeric indicators, or indicating panels of numbers and other similar, the colour equivalency is the same as recommended and established by the World Health Organization (WHO).

11. The device according to claim 10, CHARACTERIZED in that it is located in private place such as schools, private houses, swimming pools, stadiums or other similar places; wherein it displays by means of preferably five colours regarding the risk levels of the ultraviolet radiation according to the established by the World Health Organization (WHO).